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ABSTRACT

A study examined costs, achievement, and enrollment trends of public, private, and home schools in Utah. Using a business approach to determine cost-per-pupil revealed an average cost of $4,801, rather than the $3,787 calculated using the usual formula. In educational achievement Utah students appear to perform slightly better than those in other states. In its favor, Utah has a high number of intact families and moderate-to-high income levels. Students should be performing much better. Also, the decline in fifth-grade reading skills on the Stanford Achievement test and the poor skills of Utah fourth-graders are a concern. Utah's public schools educate more than 90 percent of the state's schoolchildren. Private-school enrollment is increasing about 3 percent per year. Home schooling in Utah appears to be growing at about 25 percent per year. Utah's private schools and home schools are effective, efficient, and accessible. They provide an excellent education and at reasonable cost. Parents who choose to educate their children at home are able to provide a very successful experience in most cases. Addenda examine effects of the legislative reforms of Utah's new Centennial Schools and critique such popular proposals as reducing class size and reading achievement programs. (RKJ)

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UTAH SCHOOLS:

AN IN-DEPTH LOOK

An Analysis of Spending & Achievement in Utah Schools

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A Sutherland Institute Policy Study

August 1999

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A SUTHERLAND INSTITUTE POLICY STUDY

UTAH SCHOOLS:

AN IN-DEPTH LOOK

An Analysis of Spending and Achievement in Utah Schools

August 1999

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EXECUTIVE SUMMARY

Though they differ on other issues, people on all sides of educational debates accept the absolutely critical importance of educational excellence. Results matter. But what are the results? What are they here in Utah? People with opinions on the state of education in Utah are not in short supply, but few of them agree. Utahns cannot pursue educational excellence or decide upon needed improvements if there is no clear picture of the status quo. Because of the importance of educational excellence, a thorough and accurate evaluation of education in our state must be regarded as a critical need.

To meet this need, this study takes a close and comprehensive look at education in Utah. The costs of education are examined in detail, as well as educational achievement–the two basic variables decision-makers should examine in relation to each other. Other measures of quality are also examined, as well as education outside the public school system. Data from the Utah State Office of Education, from national testing organizations, from a survey of private schools, and from other sources was analyzed, and the results may surprise many people.

COSTS OF UTAH PUBLIC SCHOOLS

Because published government cost-per-pupil figures generally use a "narrow" definition of costs that ignores sizable cost categories, **costs associated with educating children in Utah public schools are generally underreported.** In this study, we utilized a "business approach" to determine cost-per-pupil. In the business approach, all the costs involved in operating the public school system are included. By these estimates:

- The narrow approach gives a cost-per-pupil of $3,787.
- The business approach gives a cost-per-pupil of $4,801.

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STUDENT ACHIEVEMENT

Utah public school student achievement is above average in some areas, but below average in others. Of particular concern are:

- The low scores in reading and language skills by Utah fifth graders;
- The fact that according to the National Assessment of Educational Progress (NAEP), relatively few fourth-graders are considered proficient in grade level work.

On the positive side:

- Utah high school seniors continue to do well on the ACT college placement test;
- Utah still leads the nation in the number of high school students taking Advanced Placement tests and the percentage of students passing them.

There are indications that student achievement in Utah could and should be much better. The above average standing of Utah students on the Stanford Achievement Test can be partially attributed to Utah's favorable demographics (high number of intact families, moderate-to-high income levels, and high parental support). The Utah State Office of Education calculates an expected range for each Utah school based on the number of students who receive free lunch at that school. Applying the same expected range the State Office of Education uses to the state as a whole reveals that the state should be performing higher than its current national standing on the Stanford Achievement Test.

Enrollment as a Measure of School Quality

Based on an analysis of enrollment patterns in Utah public, private, and home schools, it appears that there is an increasing portion of Utah families who, for one reason or another, are selecting to educate their children outside of the public school system. Private school enrollment is increasing at about three percent per year, slightly faster than the population. Home schooling in Utah appears to be growing at about 25 percent per year.

Public, Private, and Home Schools

Utah has a successful and growing market of education choices, including public, private schools and home schooling. Utah's public schools educate more than 90 percent of Utah's school-age children, but for those students who need an alternative, Utah's private schools are effective, efficient, and accessible. Data on Utah's private schools reveals:

- Most private schools (73 percent of those that report test scores) do not have academic entrance requirements;
- Many private schools (31 percent) have programs for special education or remedial learning;
- Most private schools (66 percent) offer some form of tuition assistance. In addition, Utah's private schools save taxpayers in the state over $60 million per year.

Effects of Legislative Reforms on Public Schools

In addition to the above findings, the study's appendices review the effect of the highly publicized Centennial Schools Program and the likely effects of current legislative programs on public schools including, reducing class size, and Governor Leavitt's Reading Achievement Program.

I. Introduction

"Only the educated are free."
–Epictetus, circa A.D. 100

There are many controversies regarding the field of education, but one fact is not in question: Utahns, Americans, and people around the world need to succeed in educating their children as much as they need to succeed at any endeavor a society can undertake. Though they differ on other issues, people on all sides of educational debates accept the absolutely critical importance of educational excellence. It is the goal and the measuring stick by which all educational proposals should be evaluated. Results matter.

But what are the results? What are they here in Utah?

People with opinions on the state of education in Utah are not in short supply, but few of them agree. Statistics used by various interests to make their points also abound, but often seem contradictory. Parents who want to know how their schools are doing are presented with a bewildering number of pamphlets, newsletters, phone-book sized reports, and reports in the papers and on television that few have the time to sort through. "Class sizes are down," shout some reports. "Test scores are up," proclaim others. "Utah is ranking higher in the nation." "The U.S. is ranking lower internationally." Legislators and educators themselves fare little better; if anything, they are inundated with too much information and they must try to make sense of the many fragmented bits they receive.

How can Utahns pursue educational excellence or decide upon needed improvements if there is no clear picture of the status quo?

Decision-makers, whether they are parents or lawmakers, need to know where they are before they can set a course for where they want to be. Without an in-depth look at education in Utah today, we cannot make course corrections. We cannot know which programs are working and need to be expanded upon, and which are not and need to be reformed or eliminated. Because of the

importance of educational excellence, a thorough and accurate evaluation of education in our state must be regarded as a critical need.

To meet this need, this study takes a close and comprehensive look at education in Utah. The costs of education are examined in detail, as well as educational achievement—the two basic variables decision-makers should examine in relation to each other. Other measures of quality are also examined, as well as education outside the public school system. This study provides an overall view of education in Utah today so that decision-makers can plot their courses toward greater success tomorrow.

II. Costs in Utah Public Schools

Estimating the Real Cost of Public Schools

Determining the exact cost of providing education in public schools is not a clear-cut process. Different reports of public school budgets and expenditures report these in different ways or include or exclude various categories of expenditures.

In addition, there are a number of substantial cost categories that are seldom, if ever, included in estimates of public school costs. Among the cost categories that are typically omitted are:

1. Costs incurred by state and local governments in collecting taxes for school financing, including 100 percent of Utah's income tax collection costs and taxpayer's costs in filling out tax forms;

2. Costs incurred by higher education for providing remedial courses to college students; and

3. Costs incurred by federal or state governments for research and development of educational programs like Head Start.

These costs are a very real part of the cost of public education, yet because they are extremely diffuse and intermingled with other programs, they are usually not included in public school cost accounting.

Approaches for Measuring Public School Costs

Three approaches to measuring the costs of public schools have been suggested by various scholars. These three approaches can be labeled as follows: the narrow approach, the business approach, and the broad approach. The narrow approach for reporting school spending is used by most school districts and state education departments in the country. Under this approach, cash expenditures are reported for teacher and administrator salaries and benefits, supplies, and other current expenditures. Payments for property, equipment, interest, and capital outlays are excluded. This narrow approach is currently used to calculate per-pupil expenditures by the Utah State Office of Education, and these are the figures given in the State Superintendent's Annual Report and widely reported in the media. Under this narrow approach, Utah public schools show an average per-pupil

Three Approaches for Measuring Education Costs

The *narrow approach* is widely used by school districts, state and federal education departments, and the media.

The *business approach* uses generally accepted accounting principles to recognize revenues and expenses on the accrual basis. This approach includes building and equipment depreciation, debt service interest, and unfunded obligations not included in the narrow approach.

A *broad approach* measures all of the inputs into the public education system, including difficult-to-measure costs such as tax collection costs for school financing, costs to higher education for remedial courses, and costs for federal government research and development.

expenditure for 1997-98 of $3,787, compared to $6,131 for the nation.

The narrow definition is not an adequate means of reporting school costs since it ignores sizable cost categories. A better method is to include all costs involved in operating the school. These would include all costs that a private school would have to pay to stay in business. Borrowing accounting principles from the private sector, costs are determined on a basis that matches costs to the period in which they occur ("accrual accounting").

The business approach, similar to that used in the private sector, emphasizes the loss of owning fixed assets and the measurement of net income.

Applying the business approach means the capital cost for buildings are reflected in the statement of revenues and expenses as depreciation expense. The annual depreciation amount is computed by dividing the original cost of buildings by the estimated number of years they will be used.[1] However, amounts paid for land purchases also reduce cash and increase the asset on the balance sheet. Land, however, is not depreciated or expensed. Land and buildings are the largest and most important assets owned by school districts. Annual depreciation on buildings is the largest expense unreported under current narrow methods of reporting expenditures.

The business approach also dictates a different treatment for debt service payments. The principal amount repaid on bonds reduces cash and the liability on the balance sheet. Accordingly, the principal amount repaid on bonds is not expensed. However, interest paid on bonds issued for buildings is expensed each year under the business approach.

School units should also be required to report expenses by function. The existing accounting system reports expenditures based on separate "funds," not based on the function they serve.

CALCULATING UTAH'S PUBLIC SCHOOL BUSINESS COSTS

The formula for calculating business cost per-pupil is:

Total Expenses as Reported [2]
- Adult Education (non K-12)
- Principal Repayment
- Land Aquisition Investments

= Total Business Costs
÷ Total Fall Enrollment

= Total Business Cost Per Pupil [3]

For public schools in Utah, the average business-approach cost per student in 1997-98 was $4,801, compared to the official narrow-approach cost of $3,787. Business costs per student in Utah's ten largest districts range from $4,210 in Alpine District to $5,927 in Provo District, with an average of $4,755, slightly below the state average. The highest costs per pupil are found in small rural districts where schools are small and classrooms often half empty.

Obviously, when public school costs are measured using business principles, the costs are far higher than those reported under the narrow definition. A business approach to reporting public school costs gives a much more accurate portrayal of all the costs to educate students.

Public School Expenditures Broadly Defined

To obtain the most complete measure of public education costs, a broad definition of costs is needed. Many organizations besides state education departments and local school districts involve themselves in public education. The task of measuring all of these costs is beyond the scope of this study. However, it is possible to list the categories of costs that would need to be added to the business costs in order to arrive at the true costs of public education. Myron Lieberman, president of the Education Policy Institute in Washington, D.C., has identified a list of public school expenditures that are normally not included in estimates of current public school costs (see box on this page). The list gives readers an idea of the wide variety of different costs that can be counted as part of the educational enterprise, but are not on the accounting books of local school districts or state departments of education.

In addition to the items identified by Lieberman, the costs of the legislative and political process that governs public education and determines its budget could be added to the list. Because choices for public education are made in the political arena rather than in the private sphere, thousands of hours must be spent each year in the political

Costs, Broadly Defined

Spending on public education excluded from estimates of current expenditures and from business approach figures:

- **Federal:** Educational research and develoment,regional laboratories, teacher training, educational programs (e.g. Head Start, School-to-Work, etc.)
- **State:** School district labor relations, judicial costs (e.g. costs of operating the justice system related to schools), non-educational agencies performing K-12 services.
- **Higher Education:** Remedial courses and programs, teacher training, faculty research and time.
- **Donations, Contributions, Fees:** Foundation grants, donated time (e.g. school board time), business contributions, fees and charges paid by parents.
- **Other Societal Costs:** Professional organizations (e.g. teacher's unions) which receive "free" accommodations and payroll deduction services.

Adapted from Myron Leiberman, *Public Education: An Autopsy* (Cambridge, MA: Harvard University Press, 1993), p. 119.

Tax Collection Costs

Because school districts receive a combination of revenues from federal, state, and local sources, there are tax collection costs at all levels of government that are attributable to public education.

Without including the cost of collecting federal taxes, the cost of state tax collection for public schools probably exceeds $16 million per year, or 32 percent of the state tax commission's $51 million budget. This estimate is based on a total fiscal year 1999 state budget of $6.5 billion, of which 32 percent or $2.05 billion is for K-12 education. In addition to the above, there are local tax collection costs in the various counties. Extrapolating from the Salt Lake County tax collection budget, the total public school tax collection costs for counties and the state could be as high as $30 million. Under a broad approach, all costs associated with the collection of taxes, such as hiring attorneys and accountants, and filing tax appeals, should properly be included in the total.

process. A large fraction of the legislature's time and that of its staff could also be added to the broad cost.

All told, these difficult-to-measure broad costs of education represent significant costs per pupil. The inability to account for them completely does not make them any less real. As a practical matter, using the estimated business costs presented above is a good approach for our purposes and an immense improvement over the widely reported, narrowly defined figures.

Conclusion

It should not be concluded that education officials in Utah have any but the best of intentions in their reporting of costs using the "narrow" method. This kind of reporting is used in virtually all states and makes it easier for Utah's educators to compare notes (formulate rankings) with other educators. However, if one is less interested in comparing Utah to other states and more interested in how much education in Utah is really costing, the business or broader methods for estimating costs should be used.

Finally, while some analysts conclude that Utah is doing something wrong because our per-pupil spending is so much lower than the national average, there is another interpretation: Utah is much more efficient with its resources than the nation is, on average. School districts such as those in New York City that spend twice as much as Utah's

Does Special Education Explain the Growth of School Spending?

Some point to special education as a primary reason public education expenditures have exploded in recent years. Economists Eric A. Hanushek and Steven G. Rivkin point out that special education spending is not the largest influence on per-pupil expenditure growth. While educating a special-needs child is, on average, 2.3 times as expensive as educating a typical student, special education accounts for only 17.6 percent of the real school spending growth between 1980 and 1990.

Furthermore, while wide variations in the cost of educating special needs children exist, recent growth in special education spending has been in less expensive categories such as less severe learning disabilities. This growth would tend to reduce the average cost of educating a special-needs child.

Thus, although public school spending has increased dramatically over the last several decades, special education cannot be the primary cause of its substantial growth.

Source: Eric A. Hanushek and Steven G. Rivkin, "Understanding Twentieth-century Growth in U.S. School Spending," *Journal of Human Resources* 32:1 (Winter 1997), pp. 51-53.

school districts are clearly not providing that much better educational services to their students, parents, and taxpayers.

Notes

1. Because published government reports do not specify depreciation costs, we approximated depreciation expense by including the capital costs in the year they occurred (based on the state average). This is not consistent with generally accepted accounting principles but serves as an estimate for depreciation expense.

2. Includes materials and equipment, land aquisition, building construction, principal repayment, and interest.

3. Includes K-12 educational expenditures, materials and equipment, building construction, and interest costs per pupil.

III. Educational Achievement in Utah Public Schools

One of the major stumbling blocks facing educational improvement in Utah is the large amount of conflicting information about the academic performance of Utah's students. Parents, education leaders, and state policy makers are often presented with a bewildering array of fragmentary and seemingly contradictory pieces of information about school performance. This makes it difficult to assess the true nature and status of Utah school performance and to make sound policy decisions on this basis.

This section will review a number of education achievement measures in public schools in Utah, grades kindergarten through 12 (K-12). Achievement measures to be considered include scores on the Stanford Achievement Test, college placement tests, advanced placement tests, the National Assessment of Educational Progress, graduation rate, and international comparisons. The relationship between spending and achievement in Utah public schools is also examined.

Stanford Achievement Test

The Stanford Achievement Test, published by the Psychological Corporation and Harcourt Brace, is administered each year to all Utah public school students in grades 5, 8, and 11. Students are tested in six subject areas: reading, math, language/writing, science, social studies, and thinking skills. The Stanford Achievement Test is a nationally normed referenced test, meaning that the scores are comparable to a national norm. The norm is established by a group of students across the country who took the test when it was first developed. That group is then used for a number of years as the basis for comparison. Because the test is based on a national norm, the Stanford Achievement Test scores provide a useful barometer for educators, parents, and legislators in evaluating public schools.

The Stanford test's national norm score is the 50th percentile. A composite—or total battery score—of 55 means that the median student at that school outperformed 55 percent of the national norm group. There were 103,000 students tested in Utah last fall, or about 97 percent of regular students in the fifth grade, 97 percent in the eighth grade, and 90 percent in the eleventh grade. Special education

students, amounting on average to an additional 2.3 percent of each class, were also not required to take the test, so in practice no more than 95 percent of any class was tested.

Eleventh-Grade Scores

One bright spot in Utah's Stanford scores was the eleventh-graders' score at the 68th percentile in math. That means that the median of Utah's high school juniors performed better than 68 percent of the students in the norm group. High school juniors also scored at the 62nd percentile in science. On the negative side, in social science, these same high school juniors fell from the 62nd percentile in 1997 to 52nd in 1998.

Eighth-Grade Scores

Eighth-graders averaged at the 60th percentile in math and the 58th percentile in science, social science, and thinking skills, as they did in 1997. Their complete battery score was again 56th percentile.

Fifth-Grade Scores

Fifth-grade scores on the Stanford Achievement test represent the area of most concern. Utah's fifth-graders scored in the 44th percentile in language and in the 47th percentile in reading, down two and three percentiles, respectively, from 1997. Fifth-graders' math scores also fell from the 52nd percentile to the 49th percentile. These scores

Table 1. Stanford Achievement Test Scores

National Norm Score is always 50

	GRADE 5		GRADE 8		GRADE 11	
	1997	1998	1997	1998	1997	1998
Reading	49	47	53	53	60	60
Math	52	49	60	60	68	68
Language/Writing	47	44	50	50	53	53
Science	60	60	58	58	62	62
Social Science	51	51	58	58	62	52
Thinking Skills	53	53	58	58	52	52
Complete Battery	52	50	56	56	59	57

Note: The complete battery scores shown here are better in three instances than the scores published by the Utah State Office of Education, due to our use of a more accurate averaging procedure. The six subtest scores are first converted from percentiles to the equivalent of a raw score, averaged then converted back to an overall percentile. The Utah State Office of education uses a conversion table that treats three or four percentiles as if they were the same score, thus introducing unecessary errors. We used a finer table, achieving greater accuracy. For more on this technique, see the normal curve of error in a statistical reference book.

are all below the national norm of 50. In the case of reading, the score of 47th percentile means that median fifth-graders cannot read as well as the average student in the overall norm group. Declining fifth-grade scores are particularly alarming if they indicate possible poor future performance when these students reach the eighth and eleventh grades.

While Stanford scores are admittedly only a snapshot of students and just one indication of the quality of Utah's public education, the fall 1998 scores are cause for concern. Creating real opportunity for Utah's children requires a solid foundation in reading, the essential building block of a quality education. And yet, this is the very skill that is most called into question by the decline in fifth-grade scores. The ten-point drop in eleventh-grade social studies scores may seem to be in a less critical area, but the sheer magnitude of the drop makes it equally alarming.

The latest two years of Stanford scores for Utah are shown in Table 1. Students are tested in six subject areas: reading, math, language/writing, science, social studies, and thinking skills. The complete battery score shown is a combination of these six areas.[1]

Expected Performance in Utah Schools

On average, Utah's public school students scored at the 54th percentile, four percentile points above the national average. The media and the education establishment have viewed this standing as very positive. However, scores on the Stanford Achievement Test tend to reflect the socioeconomic composition of the student population. Therefore, one must attribute some portion of the Utah scores on the Stanford to Utah's demographics (low percentage of children in poverty and high percentage of intact families). According to a 1996 study from the Children's Rights Council and Marriage Savers, Utah ranks third in the United States for the percentage of intact families and fourth best among the states for its low poverty level. These factors have been shown to have a strong positive influence on educational performance and their effect on the performance of students in Utah cannot be discounted. What that means is that the performance of Utah schools must be evaluated by keeping in mind the fact that a large percentage of Utah students come from intact, two-parent homes with moderate to high incomes and strong parental support.

The Utah State Office of Education calculates an expected range for each Utah school on the Stanford Achievement Test based on the number of students who receive free lunch at that school. This is the most accepted statistic available that can be used to control for Utah's demographics. Applying the same expected range the Office of Education uses to the state as a whole reveals that the state should be performing five percentile points above the national average. On this basis, the state as a whole is performing just slightly worse than its expected score (54th percentile instead of 55th) but is doing better in the higher grades than in the lower grades.

College Placement Tests

American College Testing Program (ACT)

Another nationally normed test that Utah students take each year is the ACT test administered by the American College Testing Program. This test is taken by students wishing to attend a college or university and is the preferred college entrance exam in about 28 primarily western states. Last year, 22,675 (about 68 percent) of Utah's high school graduates took the ACT battery of exams covering English, reading, science reasoning, and mathematics. Utah students' composite ACT score of 21.6 was six-tenths of a point higher than seniors taking the tests elsewhere across the country, and 1998 was the 11th straight year that Utah's seniors exceeded the national ACT average.

Table 2. Utah & National ACT Scores

TEST	UTAH		NATION	
	1997	1998	1997	1998
English	21.1	21.1	20.3	20.4
Math	20.8	21.0	20.6	20.8
Reading	22.0	22.1	21.3	21.4
Science Reasoning	21.6	21.7	21.1	21.1
Composite	**21.5**	**21.6**	**21.0**	**21.0**

Source: Utah State Office of Education.

Table 3. Utah & National 11-Year Average ACT Scores

YEAR	UTAH	NATION
1988	20.9	20.8
1989	20.9	20.6
1990	21.0	20.6
1991	21.0	20.6
1992	21.1	20.6
1993	21.1	20.7
1994	21.3	20.8
1995	21.4	20.8
1996	21.4	20.9
1997	21.5	21.0
1998	21.6	21.0

Source: Utah State Office of Education.

Seniors scored 21.7 in science reasoning; the national average was 21.1. They scored 22.1 in reading and 21.1 in English. Both of these scores are 0.7 higher than the national average.

Utah seniors also received a 21.0 in mathematics, two-tenths of a percentage point higher than the average for the country. The 21.6 composite score was better than Utah's 1997 results by one-tenth of a point and was the continuation of an 11-year string of ACT performances that were either better or no worse than previous years. This means that those Utah seniors who are planning to attend college have been improving their position in relation to college-bound seniors nationwide. The high and improving Utah scores are made more impressive by the high percentage of Utah students taking the ACT test. According to the Utah State Office of Education, the improvements can be primarily attributed to greater numbers of students taking higher level courses.

Scholastic Assessment Test

The Scholastic Assessment Test (SAT) is another nationally normed test taken by high school students planning to attend a college or university. The SAT is required by many colleges and universities in the eastern United States but is not required by any Utah colleges or universities. For this reason, the test is taken by relatively few Utah high school students and those who do take the test tend to be those who are aiming to attend colleges in the East. In 1998, only 4 percent of Utah's public school seniors took the SAT, compared to a much larger percentage nationally. Because those taking the SAT are a very select group of students, the scores would be expected to be quite high. Utah's SAT scores have exceeded the national average each year, and the spread between Utah's scores and the national average has been widening each year since 1991.

This past year, Utah students had an average verbal score of 572 and an average math score of 570. Nationally, the average verbal score was 505 and the average math score was 512.

Table 4. Scholastic Assessment Test (SAT) Averages for 1998

	Utah	Nation
Verbal	572	505
Math	570	512

Source: Utah State Office of Education.

Table 5. Utah Advanced Placement Participation and Performance

			Percent Qualifying	
	Total Students	Total Exams Taken	Utah	Nation
1994	10,238	15,938	72.6%	66.1%
1995	10,110	15,907	70.0%	60.5%
1996	10,349	16,123	69.1%	62.0%
1997	11,343	17,796	69.9%	62.8%
1998	11,427	17,987	67.8%	62.6%

Source: The College Board.

Other Measures of Achievement

Advanced Placement Tests and Rigorous High School Courses

Another measure of achievement is the degree to which Utah high school students take honors, advanced placement, and other rigorous courses. Advanced placement (AP) courses allow students to earn college credit by taking advanced classes and passing an exam on that subject matter. Last year, 11,427 Utah high school students took 17,987 AP exams and 67.8 percent of the students received passing scores of 3, 4, or 5. Students obtaining scores of three or above are usually able to receive college credit. While the percentage of Utah students receiving qualifying scores is quite high compared to the national average, this marks the fourth year of a decline in the pass rate since 1994. Nevertheless, Utah still ranks number one in the nation for participation and for percentage passed.

Concurrent Enrollment courses are similar to AP courses in offering both college and high school credit for the same class, but are somewhat less highly regarded since they do not use nationally normed tests to assess students. They are taught either by a faculty member from a nearby college or by a high school teacher with a master's degree in the specific subject area who has been approved as an adjunct faculty member of a nearby college or university.

National Assessment of Educational Progress

Another national test that can be used to gauge the academic achievement of Utah students in comparison to other students in the nation is the National Assessment of Educational Progress (NAEP). The NAEP test is based on voluntary state-by-state assessments including both public and non-public schools.

Scores are measured against achievement level objectives of Basic, Proficient, and Advanced skills, arrived at through the collective judgement of a broadly representative panel of teachers, education specialists, and members of the general public. The Basic level represents only partial mastery of proficient work at the given grade level. Proficient represents solid academic performance and competency, and Advanced represents superior performance.

The most recent NAEP assessments of reading skills were conducted in 1992, 1994, and 1998. Utah is one of only three areas where reading scores for fourth-graders dropped since 1992. About one-fourth of the states have raised their scores since 1992, and the rest did not lose ground. Only in Utah, Wyoming, and the District of Columbia did scores decline.

Table 6. NAEP Reading Achievement Levels of Utah Students

	GRADE 4			GRADE 8
ACHIEVEMENT LEVELS	1992	1994	1998	1998
At or Above ADVANCED Level				
UTAH	5%	6%	5%	2%
NATION	6%	7%	6%	2%
At or Above PROFICIENT Level				
UTAH	30%	30%	28%	31%
NATION	27%	28%	29%	31%
At or Above BASIC Level				
UTAH	67%	64%	62%	77%
NATION	60%	59%	61%	72%
Below BASIC Level				
UTAH	33%	36%	38%	23%
NATION	40%	41%	39%	28%

Source: National Assessment of Educational Progress.

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The average score for fourth-graders in Utah in 1992 was 220 (slightly above the national average, on a scale from 0 to 500). In 1998, it fell to 215—exactly the national average. The District of Columbia dropped six points, from 188 to 182, and Wyoming dropped four points, from 223 to 219. Utah scored 23rd among the 43 participating jurisdictions. Eighth-graders in Utah had the 16th-highest score among 43 participating jurisdictions, with an average score of 265—somewhat above the national average of 261.

The test scores showed that relatively few fourth-graders are considered "proficient" or "advanced" in the tests. Only five percent of Utah fourth-graders reached the highest "advanced" level; 23 percent were "proficient"; 34 percent achieved "basic" competency; and 38 percent were rated "below basic." Since "proficient" represents solid academic performance and competency at grade level while "basic" represents only partial mastery of grade-level work, this means that 72 percent of Utah's fourth graders had only partial mastery of grade-level work.

Older students in Utah performed similarly, but with fewer students in "advanced" or "below-basic" categories. Only two percent of Utah eighth-graders were rated "advanced"; 29 percent were "proficient"; 46 percent were rated "basic"; and 23 percent were rated at "below basic." This means that 69 percent of Utah's eighth graders are lacking grade-level reading skills.

The NAEP results continue a disturbing trend for Utah's school children. In January, results from the 1998 Stanford Achievement Test also showed a drop in fifth-grade reading and language scores. Many reading experts consider the NAEP to be a better test to determine reading skills than multiple-choice tests like the Stanford Achievement Test, since students who take the NAEP are required to actually write passages that show whether or not they understand what they have read.

Graduation Rate

Of a senior enrollment of 35,900 regular students in fall 1997, 88 percent (31,567) graduated. By including the approximately 850 to 950 special education students with the regular enrollment, the graduation rate drops to 86 percent. Many students drop out before their senior year, however, including 2.3 percent of ninth graders, 4.3 percent of tenth graders, and 5.9 percent of eleventh graders.[2] Thus, of entering ninth graders, including special education students, about 74 percent will eventu-

ally graduate. This reported rate is probably too low. As reported in the next section, 90.9 percent of Utahns aged 18 to 24 have graduated or obtained an equivalent certificate.

Performance of U.S. Students in Relation to Other Countries

In addition to knowing how Utah students compare with their counterparts in the United States, it is also important to know whether or not U.S. students are competitive with their counterparts in other advanced industrialized nations, such as those of East Asia and Europe. This is because the value of being "above average" or even "the best" depends on the group being used for comparison. Having a higher standing in a group that is performing less well among others is not as great an achievement as having a higher standing in a group that is outperforming most or all others.

A number of studies involving comparisons between students in the United States and other countries have been done. For example, the Third International Mathematics and Science Study (TIMSS) tested over 500,000 students in grades 4-12 in 41 countries. U.S. eighth graders scored 17th in science and 28th in math. Countries ranking at about the same level as the United States included the Czech Republic, Slovenia, Bulgaria, Hungary, and the Russian Federation. Among 21 nations that participated in the high school portion of the TIMSS study, U.S. high school seniors scored in 19th place in general mathematics. Only Cyprus and South Africa scored lower. In science the United States scored in the 16th place among the same 21 nations.

U.S. students who took physics and advanced math courses performed worse than most students taking the same rigorous courses in

Figure 1. Relative Standing of US Seniors Among Other Countries in Math/Science

MATH		SCIENCE	
Netherlands	.560	Sweden	.559
Sweden	.552	Netherlands	.558
Denmark	.547	Iceland	.549
Switzerland	.540	Norway	.544
Iceland	.534	Canada	.532
Norway	.528	New Zealand	.529
France	.523	Australia	.527
New Zealand	.522	Switzerland	.523
Australia	.522	Austria	.520
Canada	.519	Slovenia	.517
Austria	.518	Denmark	.509
Slovenia	.512	**International Average**	**.500**
International Average	**.500**	Germany	.497
Germany	.495	France	.487
Hungary	.483	Czech Republic	.487
Italy	.476	Russian Federation	.481
Russian Federation	.471	**United States**	**.480**
Lithuania	.469	Italy	.475
Czech Republic	.466	Hungary	.471
United States	**.461**	Lithuania	.461
Cyprus	.466	Cyprus	.448
South Africa	.356	South Africa	.349

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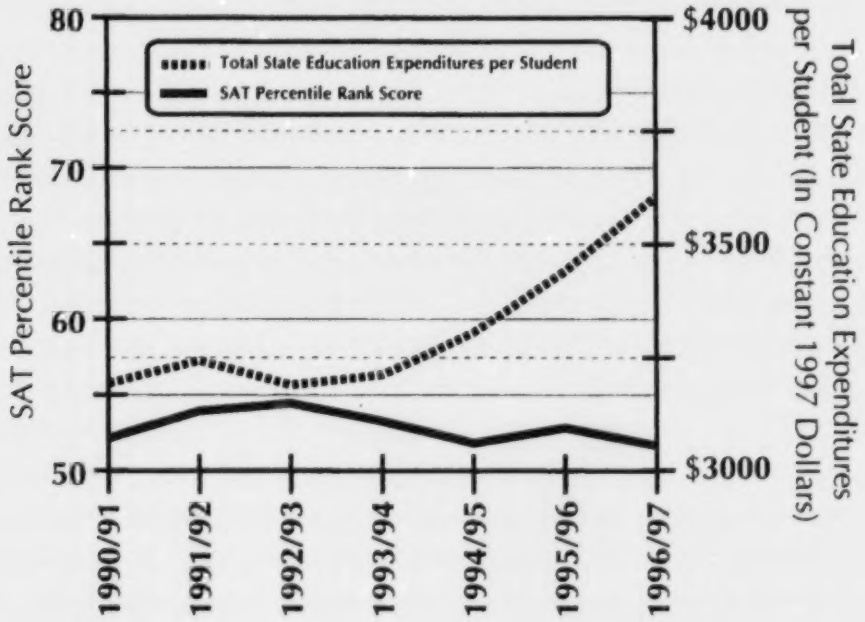
15 other nations. In physics, no country scored lower than the United States; in advanced math, only Austria scored lower. Also, it should be noted that the East Asian nations did not participate in the high school part of the TIMSS study. Had they been included, the number of nations exceeding the U.S. in their mathematics and science scores is likely to have even been greater. There might be reason to doubt the results of the TIMSS study if this were the only study that had been done comparing U.S. students and students from other developed nations, but this is not the case. A series of both large- and small-scale studies has yielded similar conclusions: U.S. students lag behind, sometimes far behind, students in other developed counties on basic academic subjects.[3]

It should be noted that among schools in comparable countries, those in the United States on average make the smallest year-to-year gains in academic achievement, according to a 1998 review of U.S. schools in an international context.[4] "The longer American students are in schools, the further they fall behind students in other lands," concluded Herbert J. Walberg, Research Professor of Education and Psychology at the University of Illinois at Chicago and author of the study.

Figure 2. Total Utah Public School Expenditures vs. SAT Scores



Relationship of Spending and Achievement

There has been much debate about whether or not higher per-pupil expenditures are related to higher student achievement. On one hand, it seems obvious that if students have access to nice buildings, well-equipped science labs, an ample supply of textbooks, and well-paid teachers that they would receive a better education and thus, higher achievement scores on tests. On the other hand, if increased state expenditures are used to pay for nonessential programs or bureaucracy, and do not reach students in classrooms, additional expenditures may not translate to increased achievement.

Figure 2 presents Utah's statewide scores on the Stanford Achievement Test from 1990 to 1996, together with the state's total expenditures on public school education. Note that despite the increase in real per-pupil expenditures for almost every fiscal year since 1990-91, achievement levels have generally remained flat or gone down.

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CONCLUSION

The achievement of Utah's students, by several measures, shows above-average achievement by our graduating seniors but alarmingly low scores in reading and language skills of fifth graders. Because reading and language skills are vital to all subjects in later grades, this downward trend must be reversed as soon as possible.

The success of high school juniors and seniors seems closely related to the success of the Advanced Placement courses, in which Utah leads the nation, and concurrent enrollment courses, courses where students get both high school and college credit for the same course. Apparently the college credit offered through these two programs helps motivate students to greater effort.

Utah seniors continue to do well on the ACT, with high participation and scores steadily increasing above the national average. The SAT scores are also quite high, but are only a measure of a small, select group of Utah seniors.

This favorable standing among U.S. seniors is less favorable when one considers that U.S. students overall are lagging behind other industrialized nations in math and science. Our students must be competitive in the world marketplace before we can say they have been well educated. We should expect our schools to be competitive with those in the highest-achieving countries in the world, not just with other students in the United States.

Finally, the standardized measures include a strong bias in Utah's favor: experts believe that in such rankings Utah is unduly favored by its advantaged demographic composition. In other words, we would be expected to rank higher than the 55th percentile due to Utah's highly advantaged student and family characteristics.

Notes

1. The 1997 complete battery scores for individual public schools in Salt Lake, Utah, Weber and Davis counties were published last year in the Sutherland Institute's *Utah Schools at a Glance: A Consumer's Guide.* Copies of the guides are still available by calling (801) 281-2081 or by going to the Institute's web page at: www.sutherlandinstitute.org.

2. Utah State Office of Education.

3. Herbert J. Walberg, *Spending More While Learning Less*, Thomas B. Fordham Foundation, July 1998. The review draws mostly upon data from *Education at a Glance: OECD Indicators* (Paris, France Organization for Economic Cooperation and Development, 1995, 1996, and 1997).

4. *Ibid.*

IV. Enrollment as a Measure of School Quality

The previous section presented data about the achievement of Utah students. These measures, along with other indicators, can be used as a measure of school quality. Another measure of school quality, often overlooked, is enrollment. Enrollment may be viewed as similar to "market share" in other enterprises. If a business consistently loses customers to its competitors, that is an indication of its loss in quality or service. Likewise, if public schools consistently lose students to their competitors (private schools and home schools), that is an indication of a perceived loss in quality or satisfaction on the part of parents.

The analogous measure of market share for public schools, then, is the enrollment percentage of school-age children. If a higher number of parents are choosing to enroll their children in private schools or to educate them at home, that is an indicator of school quality. In the education marketplace, parents can "vote with their feet."

Public School Enrollment

In the case of public schools, all Utahns already pay for them through their taxes. Therefore, parents would have to be highly motivated to choose to incur the double expense of paying for public schools and also paying tuition for a private school or making the time and resource investment to home-school. Consequently, public school enrollment as a percentage of school-age children is an important indicator of public school quality.

Table 1. Enrollment in Utah Public Schools

		1990	1991	1992	1993	1994	1995	1996	1997	1998
1	Utah Population	1,729,000	1,775,000	1,822,200	1,866,000	1,916,000	1,959,351	2,002,400	2,048,753	2,083,238
2	Percent Growth	1.35	2.66	2.65	2.41	2.68	2.26	2.20	2.31	1.68
3	Fall Enrollment	444,732	454,218	461,259	468,675	471,402	473,666	478,028	479,151	477,061
4	Actual % Growth	2.06	2.13	1.55	1.61	0.58	0.48	0.92	0.23	-0.44
5	Expected % Growth	1.71	1.69	1.66	1.68	1.74	1.82	1.92	1.99	2.07
6	Expected Enrollment	444,732	452,268	459,957	467,497	475,610	484,254	493,538	503,351	513,764
7	Missing Enrollment	0	-1,950	-1,302	-1,178	4,208	10,588	15,510	24,200	36,703

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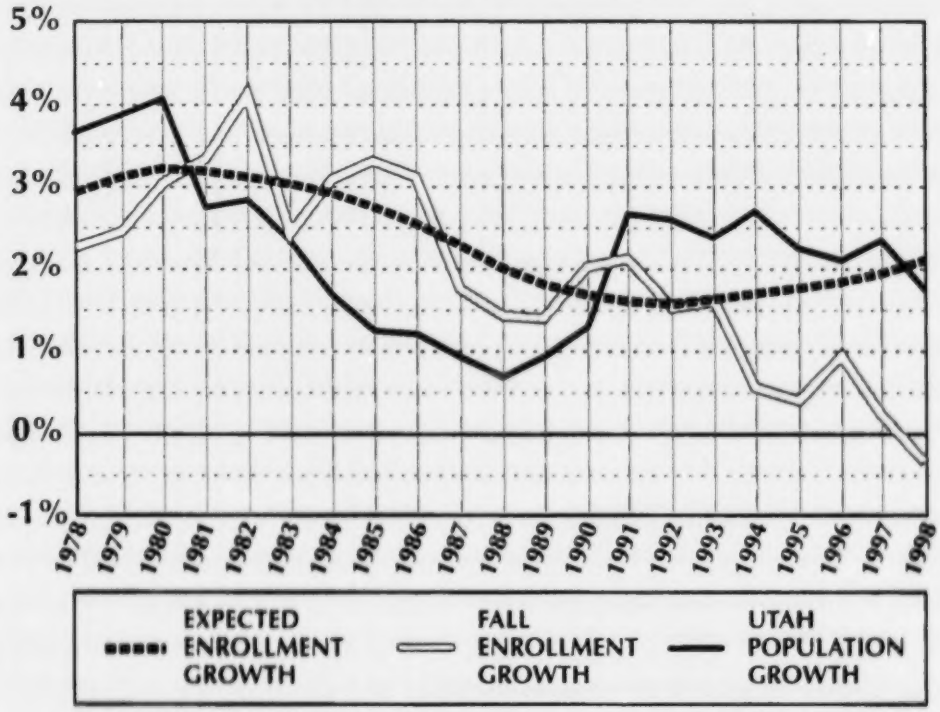
Figure 1. 1978-1998 Public School Enrollment Growth and State Population Growth



Source: USOE, Finance and Statistics, and the Governer's Office of Planning and Budget

Table 1 shows enrollment trends in Utah public schools. Line 3 of the table shows public school fall enrollment since 1990. Line 4 shows the percent growth each year. Also shown on lines 1 and 2 is the total Utah population and corresponding percent increase each year. To determine if public schools are gaining or losing "market share," it is necessary to estimate how many students "should" be enrolling in public schools each year. One reasonable way to estimate this is to look at overall population growth.

Given that the 1999 Economic Report to the Governor shows Utah still leading the nation in the ratio of school-age children to working-age adults and also having a stable birth rate, estimating enrollment based on population growth is a valid approach. In Table 1, the percent of population growth starting nine years prior to a given year was averaged to obtain an expected public school enrollment growth percentage for that year, shown on line 5. Using this percentage, an estimate of what public school enrollment should be

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each year, in numbers of students, is shown on line 6. The difference between expected and actual enrollments is shown on line 7 as "missing enrollment," amounting to 36,703 by fall 1998.[1]

The graph in Figure 1 shows the expected percent growth in public school enrollment for each year, along with actual percent growth and state population percent growth. This is the same information presented in Table 1 but for a longer time span.

What the numbers and graph show is that the enrollment of children in public schools is not growing as much as would be expected based on growth in the general population. The enrollment for 1998-1999 has actually dropped since last year by 2,090 students.

Utah's population has grown by an average 2.36 percent per year since 1990 and grew 1.61 percent per year during the 1980s. By contrast, public school enrollment grew 2.43 percent per year during the 1980s, but for the last five years has grown an average of only 0.35 percent per year. The state gained over 10,000 public school students per year throughout most of the 1980s with a smaller population base, and since then the birth rate has actually increased slightly.[2]

Given the powerful financial incentive to parents to keep their children in the public schools, the fact that increasingly large numbers of students are not showing up in public school classrooms is worthy of examination. It begs the question: where are these children?

Private School Enrollment

The first logical place to look for the "missing" public school enrollment of 36,703 students is in the private schools of Utah. Private school enrollments are not precisely known, partly because private schools regard such data as proprietary information and do not always report it to the state. However, for those schools that have reported enrollments consistently since fall 1990, the growth rate is about 3.0 percent per year. An actual count for fall 1998 yielded 13,500 students enrolled in the 97 private schools that reported (out of 121 known). Private schools have been growing faster than the population, but only slightly. When the expected growth percentages of Table 1 are applied to private schools, their growth has exceeded these expectations by only about 1,200 students since 1990, not nearly enough to account for the missing enrollment.

In addition, there were 1,003 students in 18 treatment centers for troubled youths, where 24-hour care is provided.[3] These have been growing at almost 8 percent per year through the 1990s, but even at this rate residential treatment schools can account for only about 400 of the missing enrollment.

Dropouts

Another possibility is that some of the missing enrollment might be dropouts. Dropouts reported by public schools for grades 7 through 12 totaled 3,106 for 1990-91 and 9,356 for 1997-98, tripling in eight years.[4] It is not possible to know for certain how many of these are dropouts and how many simply changed to home schooling. However, the dropouts fall into two patterns: those grouped toward the final years of high school (which are more likely to be a result of students leaving school permanently to take jobs or for other reasons) and those spread evenly throughout all grades. Approximately 5,400 of the 1997-98 dropouts were final-years dropouts, leaving just over 4,000 in the group spread out over all grades. Some of the students in this spread-out group may be genuine dropouts, others may be students who were "lost" while moving between schools (public and/or private), and some may be students transitioning into home schooling. These reported dropout figures suggest that between 15 and 26 percent of those students who enter seventh grade in Utah public schools will not stay to graduate from public school.[5]

The total of dropouts missing from the fall 1998 enrollment would include 1997-98 dropouts in grades 7 through 11, 1996-97

dropouts in grades 7 through 10, 1995-96 dropouts in grades 7 through 9, etc., using interpolation for years not reported by the State Office of Education. The total number of dropouts affecting fall 1998 enrollment is thus estimated at under 11,000. A similarly calculated number affecting the fall 1990-91 enrollment would be almost 3,000, so additional dropouts can account for about 8,000 of the missing enrollment. This leaves about 27,000 still unaccounted for by either private schools or dropouts.

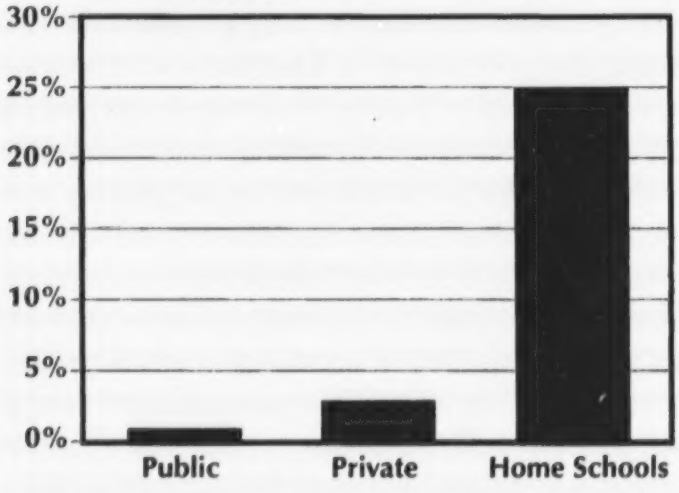
A national study of high school completion rates surveyed adults age 18-24 during 1995-97. It found that 85.8 percent of those surveyed in the United States had a high school diploma or equivalent, compared to 90.9 percent of those surveyed in Utah.[6] The Utah high school completion rate for 1990-92 was 93.9 percent, for 1993-95 was 93.6 percent, and for 1995-97 was 90.9 percent. This 3.0 percent drop among 277,504 Utahns in this age group in 1997 represents 8,325 additional dropouts, agreeing with the above estimate and leaving about 27,000 still missing or unaccounted for.

HOME SCHOOLING

The only probable place to find the other "missing" enrollment is in the homes of parents who have chosen to educate their children at home. The growth rate of home schooling was found to be 25 percent per year in a recent national study.[7] At such a rate, the number of home-educated students would double in less than three years. The rapid growth of Utah's "missing" enrollment, if most of them are indeed being home schooled, is roughly in agreement with the national growth rate of home schooling.

The State Office of Education does not have information on the total number of students being educated at home. However, sample district numbers suggest a total of about 6,000 home-schooled children in Utah, a number too small to explain the "missing" children from Table 1. This discrepancy may be explained by the way in which home school data is collected: school officials must depend largely upon parents to come in on their own initiative and report if and how many children they are home schooling.

Figure 2. Percentage Growth in Enrollment in Utah Public, Private, and Home Schools 1990-98



Note: The estimate of home-school growth in Utah is based on the national home-school growth rate and is consistent with the growth in missing public enrollment in Table 1. See Brian D. Ray, *Strengths of Their Own: Home Education Across America; Academic Achievement, Family Characteristics, and Longitudinal Traits* (National Home Education Research Institute, Salem, Oregon, 1997).

Another way to estimate the number of homeschooled students is to note that there are 7,500 families on the database of the Utah Home Education Association (UHEA). UHEA does not have a count of the number of students being educated by their members, but if one assumes the national average of 3.29 students per homeschooling family, that would yield almost 25,000 students. However, Utah families might be expected to be larger than in the nation generally, raising the estimate. There are also other smaller homeschooling associations, and there may be families who belong to none of them.[8] Adding these factors yields an estimate that agrees roughly with the estimated number of "missing" students from Table 1. If these estimates are accurate, there may be about twice as many children in home schools as in Utah's private schools, 6 percent and 3 percent of the total, respectively.

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CONCLUSION

Based on these enrollment patterns, it would appear that there is an increasing portion of Utah families who, for one reason or another, are unsatisfied with the quality of instruction or service available in Utah's public schools. The trend is recent and will bear watching, but these findings have a certain face validity: Utah's population is increasing, so the enrollment in public schools should be increasing at the same rate, but it is not. It is therefore reasonable to conclude that many parents are "voting with their feet," even if that means paying for private or home education in addition to paying normal taxes.

Notes

1. Other estimates of annual growth were tried, such as using a nine- or thirteen-year average, and starting at different numbers of years prior, but they each led to a higher estimated "missing" enrollment by fall 1998 and did not fit as well. The criteria for the estimate was that it needed to result in a good fit for enrollments from 1981 to 1991, so the estimate could then be applied to the 1990s data. Note that the predicted enrollment was less than the actual enrollment for 1991-93, showing an inaccuracy of 1,000-2,000 students in the prediction model.

2. See the 1999 *Economic Report to the Governor*, p. 53.

3. Fall 1998 private school enrollment data were obtained from individual private schools.

4. Annual Report of the State Superintendent of Public Instruction, 1997-98 Summary of Statistical and Financial Data, Utah Office of Education.

5. Across the country the worst dropout rates are in big cities. Accordingly, the Salt Lake City and Ogden districts were examined. A reasonably accurate picture is obtained by tracking the size of a seventh-grade class until graduation. By this method, 65 percent of seventh graders in the Salt Lake City school district graduated with their class, as did 74 percent of those in the Ogden school district. By the same method, some large cities, such as Cleveland, Ohio, graduate only 30 percent of their seventh-graders. A national survey of high school completion

rates indicates that 85.8 percent of the population aged 18 through 24 during the years 1995 through 1997 had high school graduation diplomas or equivalent. See Dropout Rates in the U.S.: 1997 from the U.S. Department of Education.

6. Dropout rates in the U.S.: 1997, U.S. Department of Education.

7. Brian D. Ray, *Strengths of Their Own: Home Education Across America; Academic Achievement, Family Characteristics, and Longitudinal Traits* (National Home Education Research Institute, Salem, Oregon, 1997).

8. There may be a few families on the UHEA database that don't actually home school, but are members because they are interested in the practice or expect to home school in the future. The number of such families is not known, but it can be assumed to be small compared to the number who are actually educating children at home. It can also be assumed that there are families who educate their children at home but are not members of UHEA.

V. Public, Private, and Home Schools

In order to present a complete view of the state of education in Utah, it is necessary to also look at Utah's private education providers, as well as those who take on the task of educating their children themselves. Privately schooled children form a much smaller minority in Utah than in most states–only 2.8 percent. Nevertheless, this comprises an important sector of the education marketplace and deserves close examination. Home schooling is a larger and rapidly expanding sector of the education marketplace in Utah, but is harder to discuss in detail, given the difficulties of acquiring hard data from the many homes in which it takes place.

Some additional data about public schools is presented in this section as well. In this way, a more complete picture of education in Utah can be provided.

Private School Data

Enrollment in Private Schools

Private school enrollment, as a percentage of Utah's population of school-aged children and overall population, has remained stable in recent years. In other words, it has seen consistent growth, slightly faster than the growth of Utah's population at large. As discussed in the section on enrollment in public schools, this can be interpreted as satisfaction

Table 1. Private Schools in Utah

Catholic	12
Lutheran	5
Other Religious	24
Non-Affiliated	80
Residential/ Treatment Centers	18
Total Number of schools	139
Total Number of Students Enrolled	14,543

Source: Survey of individual Utah private schools (125 of 139 reporting).

on the part of private school families. Indeed, given that such families must also pay for the public schooling they don't use, this could be an indication of a very high level of satisfaction.

There were 139 private schools operating in Utah during the 1998-99 school year.[1] Of these, 12 were Catholic schools, 5 were Lutheran, 24 represented other religious denominations, 80 were not affiliated with any religion, and 18 were residential/treatment centers. This distribution and the total number of students enrolled in these schools is shown in Table 1.

The proportion of students enrolled in these schools is not the same as the proportion of types of schools. Catholic schools, for example, comprise only 8.6 percent of private schools in Utah, but have approximately 27 percent of the private school enrollment. These percentages are shown in Figure 1.

Private School Standardized Test Scores

Most of Utah's private schools use standardized tests to measure the progress of their students. Fifty-four percent of Wasatch Front private schools gave the Stanford Achievement Test in 1997; the Iowa Test of Basic Skills was given by 7 percent; and another 2 percent used other tests, for a total of 63 percent reporting standardized test results. Some additional schools used standardized tests but chose not to report their scores, and some had no students in grades tested.

Figure 1. Percentage Enrollment by Affiliation

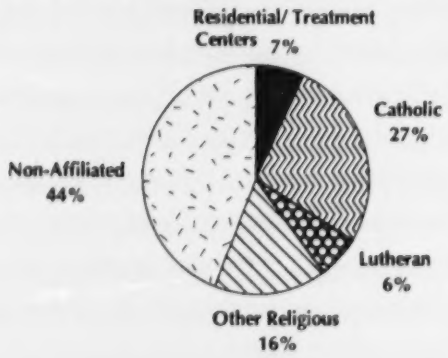


Table 2. Private School Tuition and Books: Elementary and Secondary 1997-1998

	Number of Schools	Tuition Range
Lutheran Schools K-8	4	$790-$3,208
Catholic Schools K-8	9	$1,200-$2,882
Lutheran and Catholic Secondary Schools	3	$4,400-$5,885
Other Private Secondary Schools	18	$1,530-$11,300
Other Private K-8	24	$1,185-$6,255

Source: Survey of individual Wasatch Front private schools. Private schools outside of Salt Lake, Weber, Davis, and Utah counties were not surveyed (58 of 61 schools reporting).

Since not all private schools reported test scores, as public schools do, no direct comparison is possible. However, the average reported private school score on standardized tests in 1997 was the 71st percentile.[2] Utah public schools take the Stanford Achievement Test in grades 5, 8, and 11, with an average 1997 score at the 55th percentile.[3]

Private School Tuition: Elementary and Secondary 1997-98

The cost of tuition and books for Wasatch Front private elementary schools ranges from $725 per year for kindergarten to $6,255 for a more expensive eighth grade, with an average eighth grade costing about $3,230. The cost of tuition and books for Wasatch Front private secondary schools ranges from $4,350 to $11,300 per year.

Private Schools Offering Tuition Assistance

Of 89 Utah private schools reporting, 66 percent offered some tuition assistance, as shown in Figure 2.

On the average 1 percent of students in these schools received merit scholarships and 9 percent received scholarships based on needs, with $1,690 being the average value of such assistance. These data suggest that private schools are much more accessible on average than many people may think.

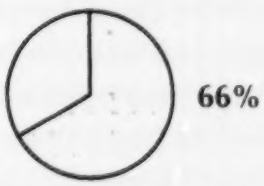
Private School Staff and Professional Training

The level of professional training the staff of a school has is widely considered to be an important measure of quality. Certified, full-time teachers in public schools are all required to have at least a bachelor's degree. In private schools 94 percent have at least a bachelor's degree, with 34 percent holding a master's or doctor's degree.[4]

Entrance Requirements for Private Schools

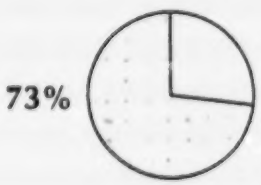
Among the 37 Wasatch Front private schools that reported standardized test scores, only ten have academic entrance requirements, as shown in Figure 3. It is sometimes believed that the higher achievement scores of private schools are products of their screening out low-achieving applicants, but this is not the case. Among the 27 private schools that do not have academic entrance requirements, the average standardized score was the 71st percentile.

Figure 2. Private Schools Offering Tuition Assistance



Source: Survey of individual Utah private schools (89 of 121 schools responding; residential treatment centers were not included). Most of the assistance is based on need with some private schools giving tuition assistance to as many as 20 percent of their students

Figure 3. Private Schools with Open Entrance Criteria



Source: Individual Wasatch Front private schools.

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Spotlight on Catholic Schools

With 27 percent of all private-school students enrolled in Catholic schools statewide, an examination of their achievements and costs is also worthwhile. Demographically speaking, the students educated in Catholic schools in Utah have fewer students with family incomes low enough to qualify for free lunches (5 percent as compared to 18.6 percent statewide). On the other hand, Catholic schools have almost twice as many ethnic minority students (20.2 percent as compared to 11.3 percent statewide).

The wealthier socioeconomic composition would be expected to raise standardized scores in Catholic schools by 6 percentiles; students should score in the 58th percentile compared to the state public-school average of 52nd percentile for grades 5 and 8. On the other hand, ethnic minority groups nationally score lower on standardized tests, so the higher minority population would tend to lower the expected score for Catholic schools by a few percentiles. Thus when Catholic students in grades 5 and 8 get an average score at the 64th percentile, most of the 12-percentile difference is attributable to higher quality in the schools themselves.

Like public schools, cost figures for Catholic schools often omit important areas of spending. As with many parochial schools, particularly at the elementary level, the school buildings are often linked to a host church. Accordingly, capital expenditures, facilities, and maintenance costs are often inextricably linked to a church nearby and not accounted for separately, which lowers the total cost. The idea that nuns' salaries are not included in the school budget, however, is a myth, and cannot account for any of the lower cost of Catholic schools. Salaries for nuns are somewhat lower than for other teachers, but less than 5 percent of Catholic school teachers are nuns.

One can arrive at a reasonable narrow estimate of cost, namely, the cost of tuition and books per Catholic school student. In 1997-98, this narrowly defined operating cost along the Wasatch Front averaged $2,516 per elementary school student and $5,130 per high school student. Averaging across grades kindergarten through 12 gives a cost of $3,233. This is considerably less than the narrowly defined cost of $3,787 per pupil in the public schools.

Public school costs per pupil:
$3,787

Catholic school costs per pupil:
$3,233

Source: Annual Report of the State Superintendent of Public Instruction, 1997-98, and the Diocese of Salt Lake City, Catholic Schools Office.

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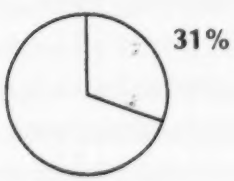
Private Schools Offering or Providing Access to Special Education/Remediation

Another variable that relates to the accessibility of private schools is the percentage of them that offer special education and remedial programs. Out of 88 responding private schools, 27, or 31 percent, have programs for students with such special needs, as shown in Figure 4.

Figure 4. Private Schools Offering or Providing Access to Special Education/Remediation



Source: Survey of individual Utah private schools (88 of 121 reporting).

Table 3. Total Tax Savings to Utah Taxpayers from the Operation of Private Schools

Private School Enrollment	Savings per Student, State Only	Average State & Local Savings per Student
13,500	$3,091	$4,523

Total Savings to State	Total State & Local Savings
$41,728,500	$61,060,500

Tax Savings to Utah Taxpayers from the Operation of Private Schools

Given that the parents of students in private schools also pay for the public schools they are not using, every student enrolled in private school represents a savings to Utah taxpayers. The amount of this savings is over $41 million per year for the state alone, as shown in Table 3. With local spending factored in, the savings exceed $60 million per year.

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PUBLIC AND PRIVATE SCHOOL DATA

Public and Private School Graduates Planning to Attend College

Another important statistic concerning the results of Utah schools is the percentage of students planning to attend college or university. Figure 5 shows the overall percentage for private schools and Figure 6 shows the same percentage for public schools.

Figure 5. Private School Graduates Planning to attend College or University 1997-1998

Source: Individual Wasatch Front private schools. Private schools outside of Salt Lake, Weber, Davis, and Utah counties were not surveyed.

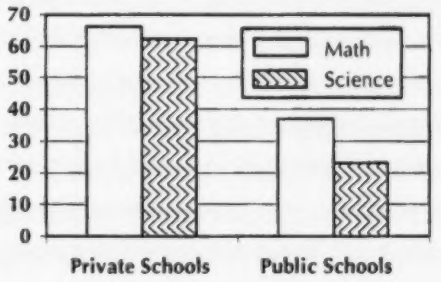
Figure 6. Public School Graduates Planning to Attend College or University 1997-98

Source: *Utah Seniors Intentions and Accomplishments, 1998*, Utah State Office of Education.

Public and Private School Students Taking Rigorous Courses

The percentage of students taking four or more years of math and four or more years of science yields another indicator of the levels of excellence being attained in Utah's schools. These percentages for public and private schools are shown below in Figure 7.

Figure 7. Percent of Students Taking Rigorous Courses



Sources: *Utah Seniors Intentions and Accomplishments*, 1998, Utah State Office of Education; survey of private high schools inSalt Lake, Weber, Davis and Utah counties (13 of 24 reporting).

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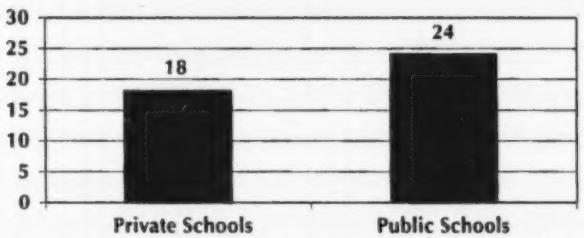
Class Size in Utah's Public and Private Schools

Class size is a commonly discussed statistic, with the presumption being that smaller class sizes will necessarily produce better educational results. However, this is not necessarily the case, since decreasing the class size may result in increased numbers of classrooms with underqualified teachers. Hence, caution is urged when using this statistic. Figure 8 shows the average class sizes of private and public schools.

Figure 8. Average Class Sizes in Utah Private and Public Schools

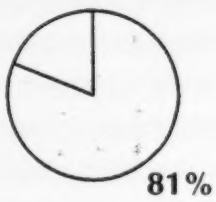


Sources: *Media Notebook*, Utah State Office of Education, and individual Wasatch Front private schools (60 of 62 reporting).

Percent of Teachers as Personnel: Public and Private Schools

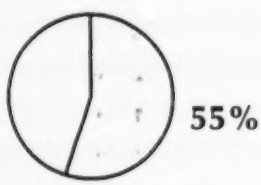
One statistic that may well be more important than class size in determining how well a school uses its resources is the percent of teachers out of total personnel. Figure 9 shows the teachers as a percentage of personnel in Wasatch Front private schools, and Figure 10 shows it for Utah's public schools.

Figure 9. Teachers as a Percentage of Personnell in Wasatch Front Private Schools



Source: Individual Wasatch Front private schools (52 of 62 reporting).

Figure 10. Teachers as a Percentage of Personnell in Wasatch Front Public Schools



Source: Annual Report of the State Superintendent of Public Instruction, 1997-98, Utah State Office of Education.

Operating Cost Per Student: Public and Private Comparison 1997-98

Another measure of the efficiency with which schools achieve their educational goals is the simple amount they spend per child to do so. For private schools, this is the

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charge for tuition, fees, and books; for public schools, it is the amount spent divided by attendance. The costs for private schools are usually lower in elementary grades but somewhat higher in high schools, reflecting actual costs. In many cases the private school costs are lower than those of public schools, as shown on Table 4.

HOME SCHOOLING IN UTAH

Since the state does not collect much information on home schooling in Utah, and what little it does collect depends on voluntary reporting on the part of home educators, detailed data are difficult to obtain on this important sector of the education marketplace. However, it is known that the popularity of home schooling has increased greatly over the past several years, growing by as much as 25 percent per year.[5] As discussed in section IV of this report, the Utah Home Education Association has 7,500 families in its database, which probably includes most of the home-schooling families in Utah.

Assuming conservatively that each of these families is home-schooling 3.3 children, Utah has about 25,000 students who are being educated in home schools. This is almost twice the number of private school students in Utah.

Current research on home education seems to indicate that the combination of good materials and individual tutoring by a parent works well and depends only slightly on the parent's level of education. Home-educated students score quite well on national standardized achievement tests. A recent national study showed eighth-grade home-educated students scoring at the 85th per-

Table 4. Operating Cost Per Student, Public and Private Schools Along the Wasatch Front, 1997-98

	Number of Schools	Low	Average	High
Public Schools	433	$4,210	$4,388	$13,009
Lutheran Schools (grades 1-8)	4	$2,425	$2,936	$3,208
Catholic Schools (grades 1-8)	9	$2,200	$2,516	$2,882
Lutheran and Catholic High Schools	3	$4,400	$5,162	$5,885
Other Private Secondary Schools	18	$1,530	$5,354	$11,300
Other Private (grades 1-8)	19	$2,030	$3,571	$6,225

Sources: Annual Report of the State Superintendent of Public Instruction, 1997-98, and individual Wasatch Front private schools (58 of 61 reporting).

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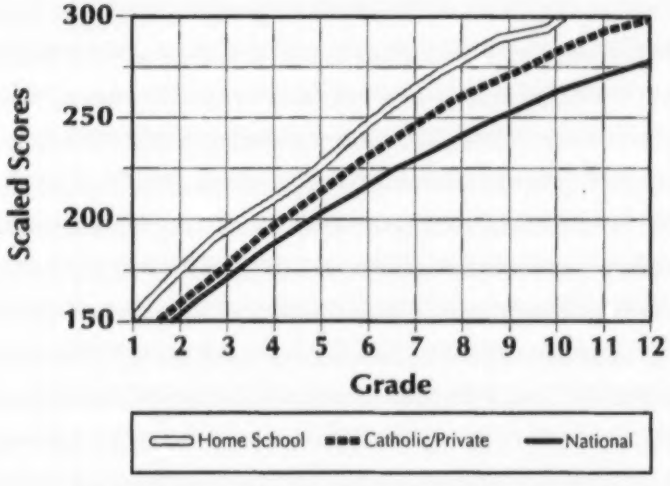
centile (the national average for public and private schools is 50th).[6] It should be noted that the achievement levels of home school students reported in this survey may be inflated due to the voluntary nature of the survey. However, a number of other studies of the achievement of home-educated students have yielded findings similar to those just mentioned.[7]

Home school students, nationally, did quite well in 1998 on the ACT college entrance examination. They had an average ACT composite score of 22.8 compared with the national ACT average of 21.0. This places the average home school student in the 65th percentile of all ACT test takers. Another recognition of the academic success of home school students is the fact that a growing number of colleges and universities are accepting home school students. Some colleges even make special efforts to recruit home-educated students.

A 1998 national study of 20,760 home-educated students used the Iowa Test of Basic Skills (ITBS) and the Tests of Achievement and Proficiency (TAP) to give a composite score for each test taker in grades 1 through 12.[8] Figure 11 shows the results of that study. The national average score (including public and private schools) is the lowest

Figure 11. Academic Achievement of Home-School Students, Private-School Students, and Public and Private Students



Source: Lawrence M. Rudner, Scholastic Achievement and Demographic Characteristics of Home School Students in 1998, *Education Policy Analysis Archives*, Vol 7, No. 8, March 1999.

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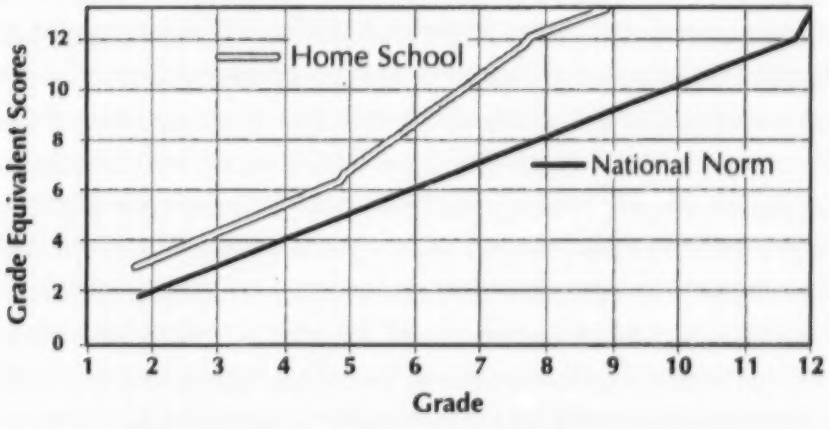
curve. The middle curve shows only private schools, which outscored the national average at each grade. The top curve shows the scores of home-educated students. For example, at the beginning of third grade (directly above the number 3) the national average score is 172, the private school score is 178, and the home school score is 195. The national average reaches 195 almost a year and a half later.

Figure 12 translates these scores to show how the average home-schooled child compares to the national average in terms of grade level. In the early grades, the average score hovers a little more than a grade above that of their public/private school peers. After the fifth grade, the home-educated students begin to pull farther ahead. By the time they are in the eighth grade, their scores are four grade equivalents above the national average.

One important non-statistical consideration in evaluating the performance of home schools is that, like public schools, home schools "have to take everyone" in the family, not just high-performing students. Indeed, many parents opt to educate their children at home precisely because the children are having trouble at school, making it all the more noteworthy that home school students perform so well, on average.

This information should not be interpreted to mean that home schooling is superior to public or private schools, nor does it indicate

Figure 12. Home-School Students Compared to the National Norm Group in Grade Equivalent Units



Source: Lawrence M. Rudner, Scholastic Achievement and Demographic Characteristics of Home School Students in 1998, *Education Policy Analysis Archives*, Vol 7, No. 8, March 1999.

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that children will perform better academically if they are home-schooled. What these data do indicate, however, is that those parents choosing to educate their children at home are able to provide a very successful academic experience, in most cases.

CONCLUSION

The additional data presented in this section show that Utah's marketplace for education services is more diverse than it might first appear, with numerous valid options for parents and students. Utah's public schools are slightly above average in most regards and educate more than 90 percent of Utah school-age children. For those students who need an alternative, there is a significant and growing set of companions in the private sector in private and home schools. The data presented show that Utah's private and home schools are effective, efficient, and accessible. They make a valuable contribution by providing a significant number of children with an excellent education at low cost, while saving Utah taxpayers money.

Notes

1. The Sutherland Institute contacted 139 Utah private schools by telephone and asked them to respond to 13 questions. Some schools did not reply to all questions, either because they were not applicable or because the information was not available.
2. Scores are for Fall 1997 and are for private schools without academic entrance requirements. The average is composed of the 28 such Wasatch Front schools reporting scores.
3. Utah Statewide Testing Program, Utah State Office of Education, 1997.
4. Survey of individual Utah private schools (84 of 121 schools reporting).
5. Brian D. Ray, *Strengths of Their Own: Home Education Across America; Academic Achievement, Family Characteristics, and Longitudinal Traits,* (National Home Education Research Institute, Salem, Oregon, 1997).
6. *Ibid.*
7. A complete review of the literature on academic performance of home educated students is provided in Brian D. Ray, *Strengths of Their Own: Home Education Across America; Academic Achievement, Family Characteristics, and Longitudinal Traits,* (Home Education Research Institute, Salem, Oregon, 1997).
8. Lawrence M. Rudner, "Scholastic Achievement and Demographic Characteristics of Home School Students in 1998," *Education Policy Analysis Archives,* Vol 7, No. 8, March 1999. Available online: http://epaa.asu.edu/epaa/v7n8/. Parents volunteered to participate without knowing how their students would score.

VI. Conclusion

This study presents a close and comprehensive look at K-12 education in Utah. A clear and accurate description of the status quo is important if legislators, school leaders, and parents are to make good decisions about where we should go from here. Some of the major findings of the study are summarized below.

Costs

Costs associated with educating children in Utah public schools are generally underreported. This is because published government cost-per-pupil figures generally use a "narrow" definition of costs that ignores sizable cost categories. In this study, we utilized a "business approach" to determine cost-per-pupil. In the business approach, all the costs involved in operating the public school system are included. The business approach to determining cost-per-pupil reveals that the average cost for educating a student in Utah's public schools is $4,801, whereas the narrow definition's cost-per-pupil is $3,787. The larger cost figure gives a much more accurate portrayal of all the costs associated with educating a student in Utah public schools.

Achievement

The educational achievement of Utah students appears to be slightly above average when compared to the achievement of students around the United States. However, there are indications that the results could and should be much better. The above average standing of Utah students can be partially attributed to Utah's favorable demographics (high number in intact families and moderate to high income levels, and high parental support). If these factors are taken into consideration, Utah students should be performing much better. Also, Utah's slightly above average standing among U.S. students may not be so great a distinction given that American eighth graders only scored 17th in science and 28th in math in a recent comparison between 41 industrialized nations. U.S. high school seniors scored near the bottom in math and science among 21 nations. Lastly, the decline in fifth-grade reading skills on the Stanford Achievement Test and the poor skills of Utah fourth-graders on the reading portion of the National Assessment of Educational Progress suggest that there are valid reasons to be concerned about the future of education in Utah.

Enrollment Trends

Based on an analysis of enrollment patterns in Utah public, private, and home schools, it appears that there is an increasing portion of Utah families who, for one reason or another, are selecting to educate their children at home or are shifting them to private schools. Private school enrollment is increasing at about three percent per year, slightly faster than the population. Home schooling in Utah appears to be growing at about 25 percent per year (approximately the same rate as the national rate of home schooling growth).

Public, Private, and Home Schools

Utah's marketplace for education services includes a growing private school sector and a more rapidly growing trend toward home education. Utah's public schools educate more than 90 percent of Utah's school-age children, but for those students who need an alternative, Utah's private schools are effective, efficient, and accessible. They make a valuable contribution by providing a significant number of children with an excellent education at reasonable cost while saving Utah taxpayers money. Data on the academic achievement of home-educated students indicates that parents who choose to educate their children at home are able to provide a very successful experience in most cases.

Final Note

Education leaders, legislators, and parents need to have a clear and accurate picture of education in Utah if they are to make good decisions about policies and programs that will enhance our future and the future of our children. The data presented in this study provides a basis upon which all parties concerned about education in Utah can come together to make decisions about where to go from here. By providing a clear picture of the status quo, it is hoped that greater agreement on productive policies and programs will be forthcoming, as well as the will to move in that direction.

ADDENDA: Effects of Legislative Reforms on Public Schools

Centennial Schools

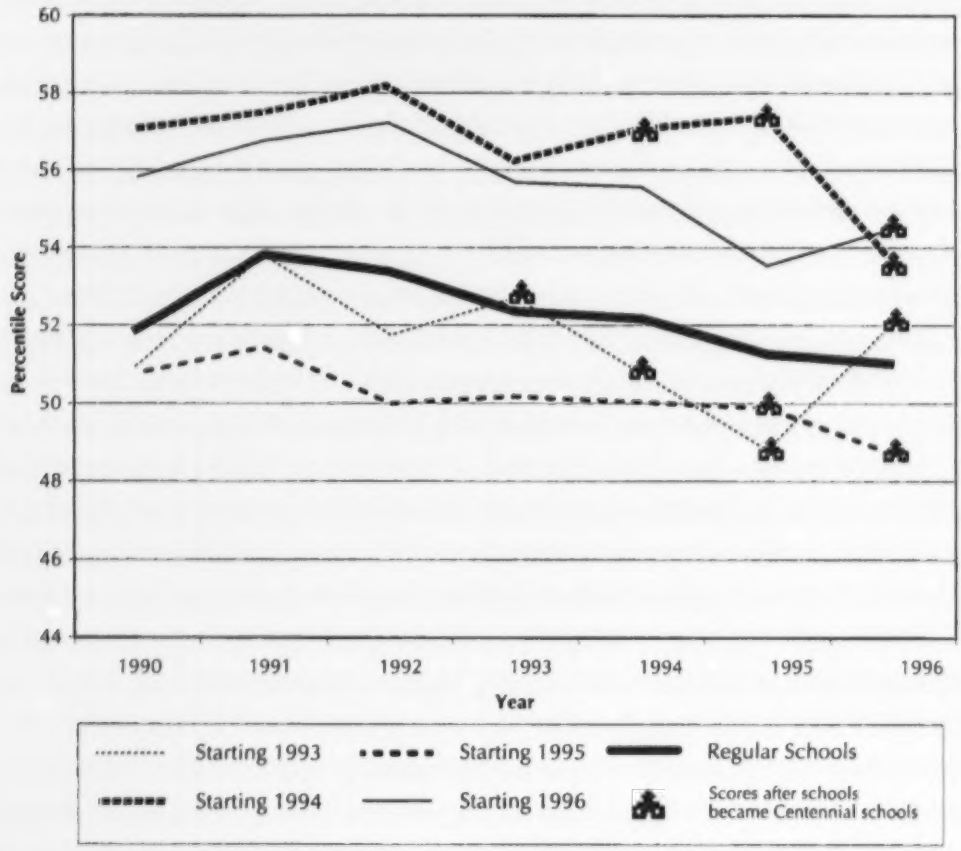
Governor Leavitt's announcement of Centennial Schools was done with considerable fanfare: "On January 18 of [1993], in my State of the State address, I called for one of the most important initiatives of my administration. I asked the schools of this state to participate in a bottom-up restructuring called Centennial Schools. My goal in issuing this challenge was for schools to rethink what they are doing from focusing on the process of education to focusing on student outcomes."[1]

Most parents and many teachers would assume that by outcomes the governor meant such things as scores on standardized tests. The actual goals of the Centennial Schools program were "to achieve the systematic changes called for in the State Public Education Strategic Plan."[2] To quote that strategic plan's Action Plan 5-b: "Assess students on an on-going basis using authentic performance-based methods. Also use multiple means of assessment such as projects, interviews, demonstrations, and documented competencies with portfolio. Use standardized tests solely to evaluate the statewide system."

The means to accomplish educational excellence would be different in each Centennial School. Site-based management teams, composed of 50 percent parents, 50 percent teachers, and the principal as a tie breaker, would be used to harness the creative energy of school-by-school autonomy. Quoting from the strategic plan, Strategy IV: "We will empower each school to create its own vision and plan to achieve results consistent with the mission and objectives of Utah public education."

Each applying school developed a description or profile of its program, and its application for participation was accepted if its plan was creative enough and was also well aligned with the state's strategic plan. These school profiles are available from the State Office of Education in Utah Centennial Schools: Profiles of Participating Schools 1996-97. The profiles contain many buzzwords like "diversity," "working with others," "higher level thinking," "student education plans," "technology," and "curriculum restructuring." A good fraction of the profiles mention improving student scores. Three evaluations of Centennial Schools were contracted by the State Office of Education and can be found on their web site: www.usoe.k12.ut.us/programs/centennial/progeval.htm.

Figure 1. Stanford Achievement Test Scores in Centennial Elementary Schools



Note: Centennial schools for which one or more years of standardized test scores are available are included. Scores for years before and after schools became part of the Centennial Schools Program are shown. Regular schools (schools that have never been Centennial schools) are also shown . Scores for 1997 and 1998 are not included because a different version of the Stanford Achievement Test, version 9, was used, for which results would not be directly comparable.

In the first evaluation, teachers and principals in participating schools were interviewed, the consensus being that they felt they were progressing toward their goals, although in over half of the schools parental participation was limited to only a few parents. Only 12 percent of the parents "felt like equal partners with the school staff in making educational decisions." The second evaluation was similar, with optimistic statements expressed but "very little substantive, in-depth outcome data." A majority of the funding was "invested in inservice training...to prepare teachers to use new approaches." The third (final) evaluation rated parent participation as "high," but gave

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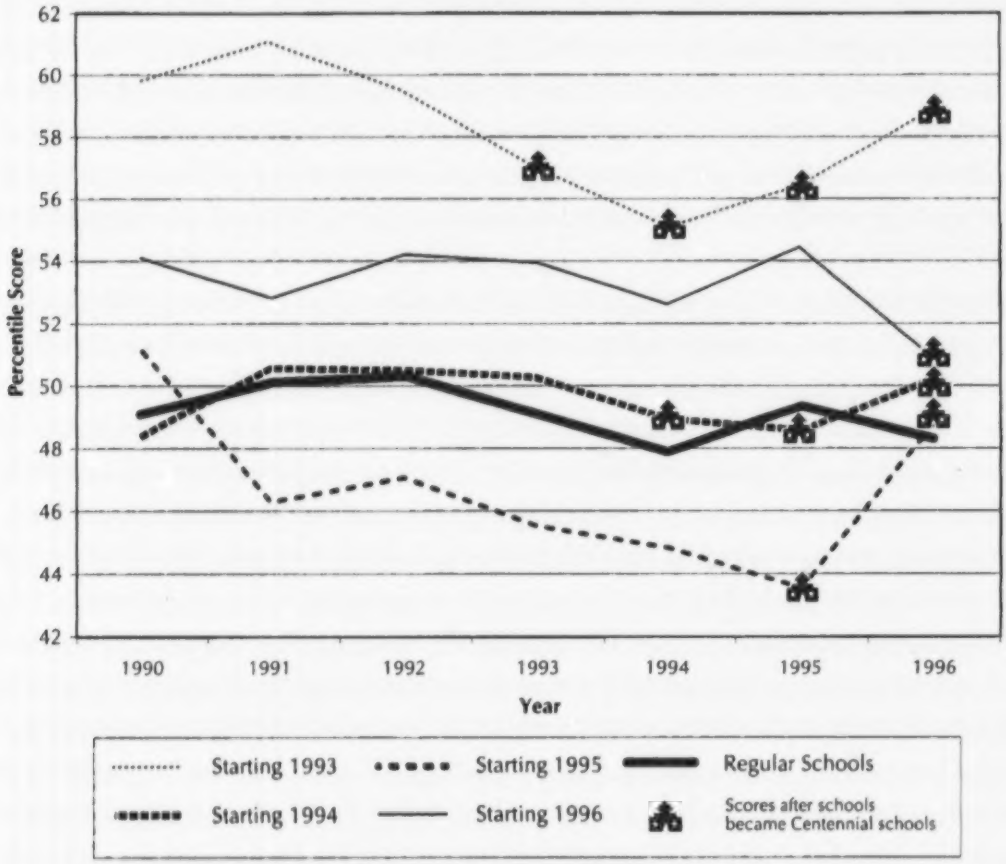
Figure 2. Stanford Achievement Test Scores in Centennial Middle Schools



Note: Centennial schools for which one or more years of standardized test scores are available are included. Scores for years before and after schools became part of the Centennial Schools Program are shown. Regular schools (schools that have never been Centennial schools) are also shown . Scores for 1997 and 1998 are not included because a different version of the Stanford Achievement Test, version 9, was used, for which results would not be directly comparable.

no numbers on any goals or objectives supposedly being reached.

The legislature requested a performance audit on Centennial Schools, a digest of which can be found at: www.le.state.ut.us/audit/ad6_96.htm. It said, in part: "a full review of Centennial School program effectiveness is impractical at this time...because the Utah State Office of Education has not identified measurable program outcomes."

One might expect that big "Centennial School" banners and other promotions would encourage students to study harder, have better attitudes in class, have better school spirit, or be more excited about the future value of their education. Any or all of these

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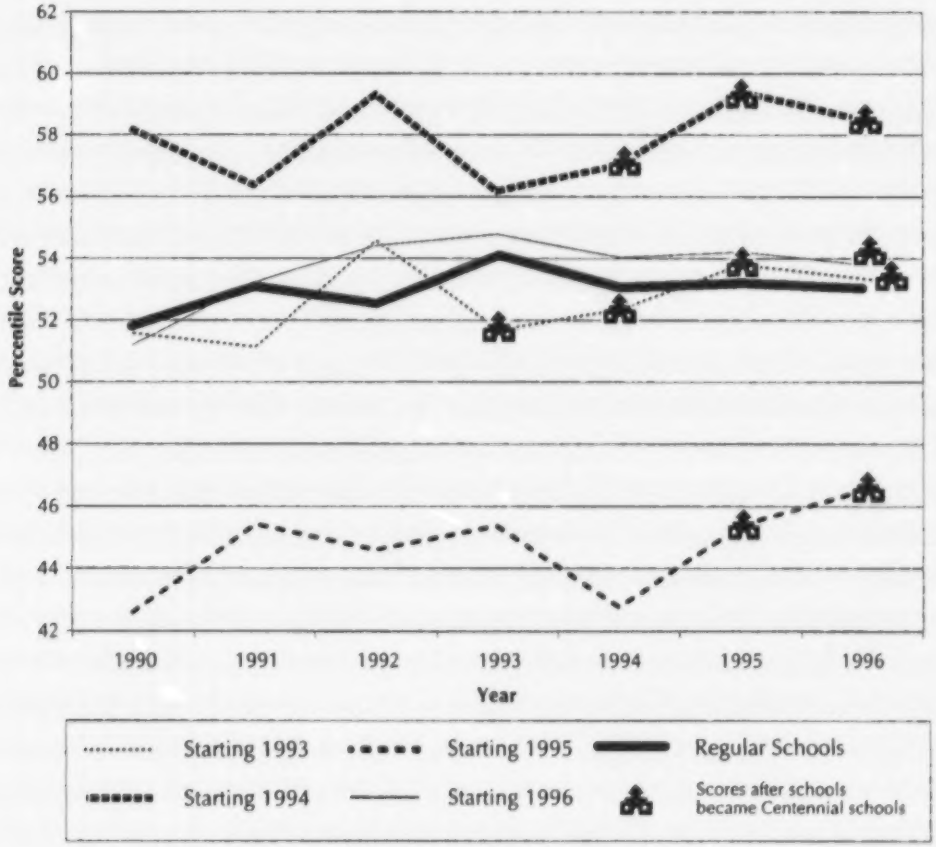
Figure 3. Stanford Achievement Test Scores in Centennial High Schools



Note: Centennial schools for which one or more years of standardized test scores are available are included. Scores for years before and after schools became part of the Centennial Schools Program are shown. Regular schools (schools that have never been Centennial schools) are also shown . Scores for 1997 and 1998 are not included because a different version of the Stanford Achievement Test, version 9, was used, for which results would not be directly comparable.

should tend to improve test scores. Thus we can statistically look at the average Stanford Achievement Test (version 8) scores before and after Centennial status for an objective and rather meaningful evaluation of the Centennial School program. The results are shown in Figures 1, 2, and 3.

For each grade level, a curve shows the average test scores before and after Centennial status. Utah public schools are divided into five groups: those starting Centennial status in the fall of years 1993, 1994, 1995, and 1996, and "regular" schools which never had Centennial status. All of the Centennial schools in the state are included in the figures, except new

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schools or other schools with less than seven years of scores. None of the curves shows a statistically significant increase or decrease, the overall result being no significant change whatsoever.

For elementary schools, the decline of Centennial schools after designation was about one percentile, similar to the non-Centennial schools. For middle schools, the decline was about two percentiles after designation, while non-Centennial schools declined one percentile. For high schools, there was an increase of almost one percentile after designation, while non-Centennial schools held steady with no gain or loss. Adding the three together (grades 5, 8, and 11) no gain or loss occurred that could be associated with Centennial status.

The appropriation of over $16 million since 1993 for Centennial Schools has had no noticeable effect, either positive or negative. In the spirit of Thomas Edison, the value may be in what we learn from the failure. Here are some possibilities:

1. There was probably too much emphasis on change: different isn't always better. In biology over 99 percent of new mutations are harmful. If educators have learned anything over the centuries, then complete "bottom-up restructuring" would in many cases be harmful. Outcomes might have been worse had not many teachers just followed their good sense.

   Change was a big factor in applications being accepted. Novelty and creativity are good, but even in the fine arts there is a great deal to be said for learning the fundamentals and giving them all the effort they deserve. There is no substitute for mastering one's craft. Were any schools accepted into the program with a theme of getting back to basics, and building from there?

   Over-emphasis on change calls to mind other fads tried in recent decades. It is encouraging in this respect that the task force on accountability in schools may recommend a "new" accountability program, where students must know the material or repeat the grade, as was the practice in schools for centuries. We've already had a great amount of experience with "social promotion," a system in which all students pass regardless of whether they know their grade's material or not, a mistake introduced in the 1960s.

2. Individual schools having "optimum

autonomy and flexibility" sounds very good, but was seldom realized in practice. With only 50 percent parents on the sitebased councils, several of whom might not be able to attend a given meeting, a principal could usually command a majority by simply requiring the teachers to be there. If that didn't work the principal still held the tiebreaker vote, and in at least some districts could declare the council "advisory only."

3. Parental participation was low, but this would be expected whenever site-based councils had no real power, as was often the case. Parents and children should be treated as customers in a business; their concerns should be given prime consideration. Every parent wants an excellent education for his or her child, and will take greater interest and become more involved if the school treats their concerns seriously. If parents had a clear majority of the votes, they could negotiate on a productive basis with the teachers, who have the edge in experience.

Current Legislative Proposals: Will They Work?

Many interest groups are proposing changes and improvements to public education in Utah. Since the object is public education–directed by the state legislature and run by the State Office of Education–no proposal gets acted upon unless it passes through the Utah legislature first. However, although the federal government has no constitutional authority over public education, the U.S. Congress frequently passes education bills. The edicts of the latter are implemented by the United States Department of Education, in cooperation with state education agencies. Hence, there is a need to examine legislative proposals from both state and federal levels.

Reducing Class Size

Federally, the current focus is on reduced classroom size, or, more accurately, on lowering the ratio of students to teachers. The president, perhaps borrowing from his much lauded plan to put 100,000 more police officers on the streets, has challenged Congress to enact his "Ed-Flex" program and put 100,000 more teachers in America's classrooms. Thus far, Congress has provided $1.2 billion in funding for 30,000 additional

teachers. Of this, $7.7 million will reach Utah, enabling the state to hire 198 additional elementary school teachers.

Many educators in Utah are thrilled by this development, having long complained that, on average, Utah's teachers are responsible for more students each than teachers in any other state in the country. U.S. Secretary of Education Richard Riley says that, "Any parent or teacher will tell you class size really makes a difference." Unfortunately, the actual results in the United States have not borne out this optimism. Nationally, from 1970 to 1985, the number of public school teachers increased by 7 percent. The pupil/teacher ratio fell from 22.3:1 to 17.9:1 (it is now about 17:1). However, during approximately this same time period (1964 to 1977) the United States saw its greatest uninterrupted decline in Scholastic Assessment Test (SAT) scores.

Reducing the student-to-teacher ratio makes intuitive sense as a solution, so why do the data from the largest sample available (all public school students in the country) not back it up? There are no definitive answers as to why this is the case, but problems caused by class-size reduction in other states may offer some clues. For example, some school districts, driven by legal caps on classroom size, were forced to hire unqualified and under-qualified teachers or be in violation of the law. Utah may be able to succeed where other states have failed, but rushing to spend money on class-size reduction without a clear plan to ensure that the funds spent achieve the desired results may not be the best stewardship of the public purse.

If public education across the country and in Utah suffers from more fundamental problems, reducing class size will only increase the number of classrooms in which those problems manifest themselves. If public education were not suffering from deeper breakdowns, then why has class-size reduction not produced the promised result? Utahns and all Americans should have an answer to this question before their representatives divert more funds to class-size reduction.

Reading Programs

At the state level, the major policy proposals of the year could be summed up as "more of the same." Out of $1.8 billion allocated by the state for education in the 1999-2000 school year, the largest allocation for a new program was only $5 million, for Governor Leavitt's new Reading Achievement Program.

The governor's initiative seems to have been prompted by an alarming decrease in SAT literacy scores among Utah's elementary school students, down from 47th percentile in 1997 to the 44th in 1998 (with the national average being 50th). The initiative calls for all students to be able to read by the end of the third grade. How this result is to be achieved is being left up to the individual school districts. It is too early to tell exactly what the results will be, but the public would be wise to be cautious. This supposed solution could best be described as "throwing money at the problem." The initiative has no plan. In the name of "local control," the $5 million have been given to the very agencies that failed to produce the results in the first place, with no instructions on how to do better this time.

Other Programs

Other recent steps taken at the state level include a smorgasbord of minor programs. These include: a task force on learning standards and accountability empowered to set performance standards for students; state-wide core curriculum testing; a basic skills test required for graduation; new regulations for teacher certification; testing of new teachers; "strengthening" truancy laws; and a $1,000 reward for schools that achieve specified reading levels.

Of these, the student performance standards hold the greatest promise for improvement. If the task force succeeds in setting them, and if they match the educational needs of the students and goals of parents, they could lead to some much-needed introspection on the part of public education officials. None of the other programs have the clout or scope to cause the necessary fundamental reassessment required. They are all essentially different forms of tinkering around the edges of the existing system—not the sort of proposals that are needed if Utah is to see the serious reform needed to enable the major improvements sought by parents, students, and taxpayers.

Notes

1. See www.governor.state.ut.us/html/cent_schools.htm.

2. Foreword, *Utah Centennial Schools: Profiles of Participating Schools 1996-97.* A copy of the state's strategic plan in effect from 1992 to 1998 can be obtained from the Utah State Library.

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A Sutherland Institute Publication Update
Re: *Utah Schools: An In-Depth Look*

January 10, 2000
PUB 00-01

Enrollment Trends in Utah Public, Private, and Home Schools

Data recently released by officials at the Utah State Office of Education (USOE) show that enrollment in Utah's public schools continued to take a downturn for the second year in a row. Enrollment for fall 1999 decreased by 1,087 (See *Fall Enrollment Report of Utah Public and Private Schools*, October 1, 1999). State education officials attribute this decline to people leaving the state and a declining birthrate. However, the growth in Utah's private school enrollment and in the number of families who are choosing to educate their children at home shows another part of the story.

From fall 1990 to fall 1998, the growth rate in Utah's private schools has been about 3.0 percent per year, slightly higher than what would be expected based on population growth. The *Fall Enrollment Report of Utah Public and Private Schools* shows an 18 percent increase in private school enrollment between fall 1998 and fall 1999. Nationally, the number of students being educated at home is growing by about 25 percent per year. The growth of homeschooling in Utah may not be that high, but it is certainly an option that has become more popular with a large number of Utah parents.

A report issued in September by the Sutherland Institute examined enrollment trends among public, private, and home-educated students (see *Utah Schools: An In-Depth Look*, Chapter IV; "Enrollment as a Measure of School Quality"). Based on population growth data, the report estimated that 36,703 school aged children were "missing" from the public school system and that these children had found their way into private schools or were being educated at home. The newly released enrollment data from the USOE reveal that these projections were overestimated. These projections were based on a constant birth rate over the period in question. However, birthrate data since the 1970s show that the Utah birth rate hit a temporary peak in 1977-1979, then declined rather steeply for eight years before leveling out. The result was a larger outgoing senior class than the incoming kindergarten class, causing declines in the number of school-age children for the years 1998, 1999, and probably for 2000. Therefore, much of the decline in public school enrollment can be attributed to the decline in birthrate during 1979-1987 and not entirely to students leaving the public schools for private or home schools.[1]

This information does not change the authors' conclusion that Utah public schools have lost a significant number of students to private and home schooling in recent decades. Even though Utah's school age population has been in a recent decline, the percentage of school-age children who are enrolling in private schools continues to grow. The number of students who are being home schooled has probably also grown comparable to the national trend, although data on the number of Utah students being educated at home is difficult to obtain. This growth in private and home education has happened in spite of the fact that parents who choose these options must pay twice for education, once through their taxes and again for private school tuition.

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[1] Based on this analysis, the number of students classified as "missing enrollment" cited on page 31 of the report should be 28,606 rather than 36,703. By subtracting out the number of school aged children enrolled in private schools (13,500) and the number of school dropouts (5,400), the number of students being educated at home in Utah can be estimated to be about 10,000 students. This may be a more precise estimate of the number of Utah students being home schooled than the 25,000 figure cited on p. 36 of the report, a number that was obtained by extrapolating from the number of families currently in the database of the Utah Home Education Association.

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